

**C-Band + C-Band Lower, MIMO Version**

**ALLIANCE provides a flexible system architecture where any combination of ALLIANCE remote units can be connected to a common iBIU headend to solve any coverage requirement.**

**The edgeROU is the smallest, highest power, and lowest cost fiber-to-the-edge active DAS remote available.**

**The edgeROU remotes require the edgeHUB for power and optical connection to the headend.**

The C-Band/C-Band Lower edgeROU features:

- Main unit supporting C-Band MIMO (3700MHz-3980MHz) and C-Band Lower MIMO (3450-3550 MHz)
- All bands supported over a single fiber
- Integrated and external antenna options
- Compact size
- Flexible mounting options

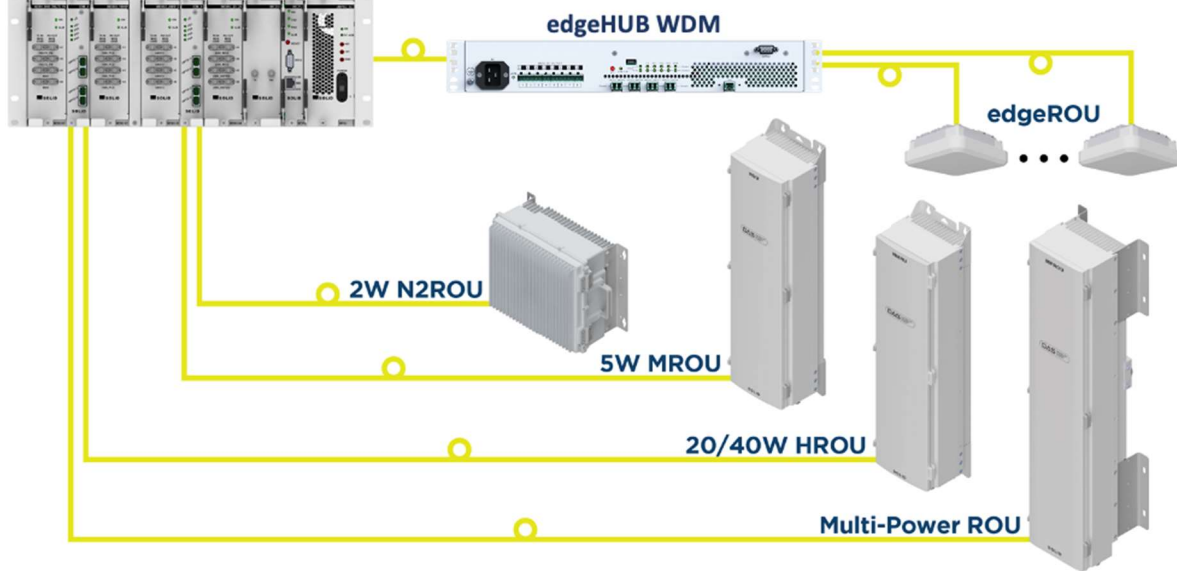
## System Architecture

Flexible Architecture: the ALLIANCE headend supports all remote types.

### DMS1200 System Management

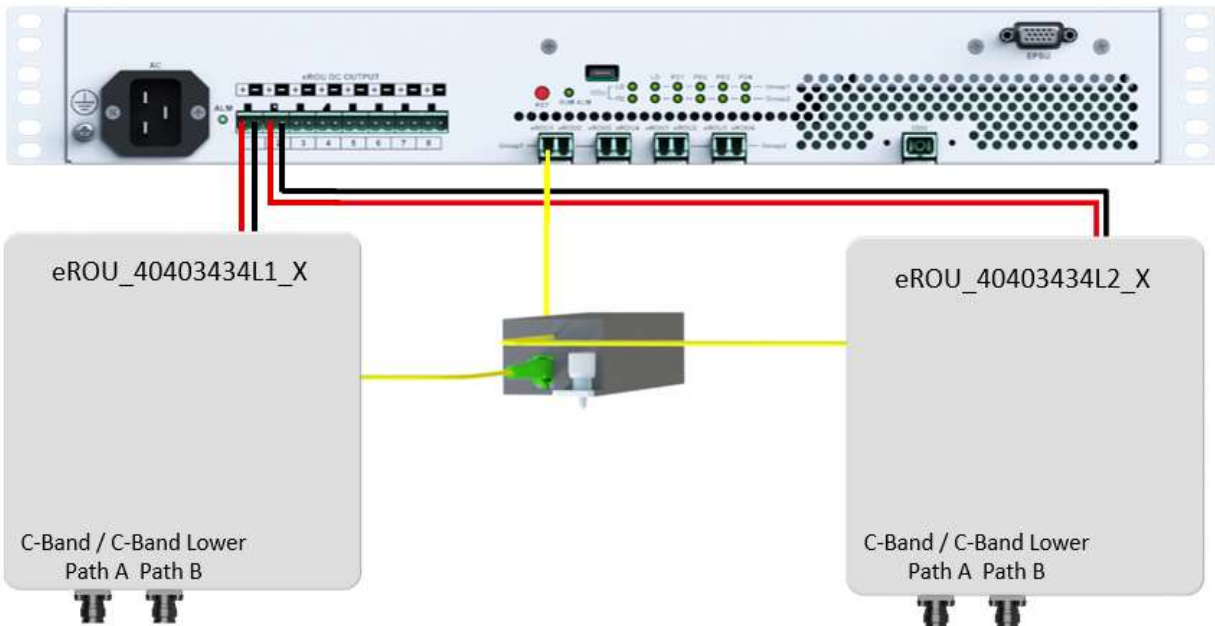


### iBIU Signal Interface



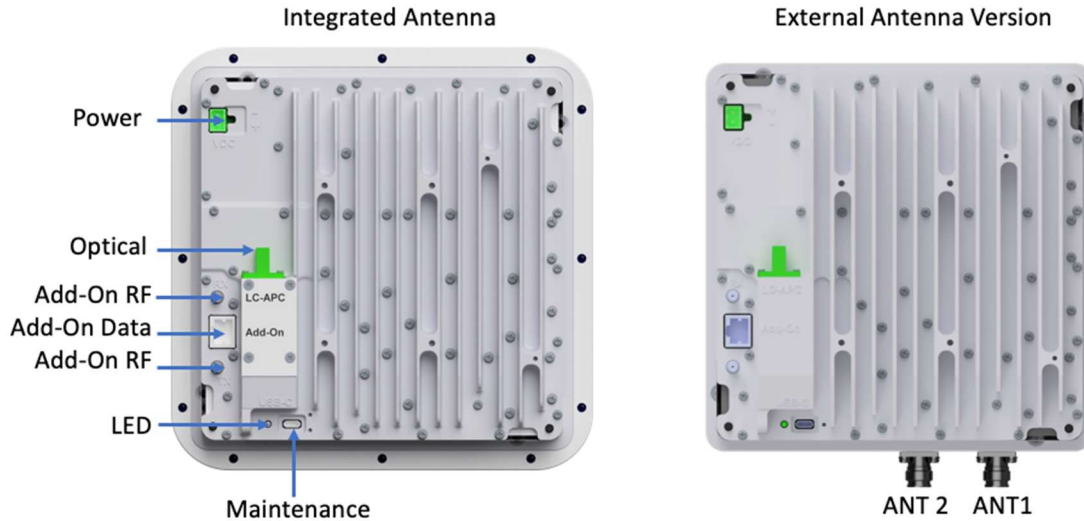
## Flexible Deployments

The eROU\_40403434 main unit can be deployed as a standalone unit. For increasing coverage, the eROU\_40403434 main unit can also be cascaded with a second eROU\_40403434 unit. Cascading two main units requires mixing the Lambda versions (i.e., pair L1 with L2 or L2 with L1) and using the optic coupler (eROU\_CASCADE\_KIT) to split the optical feed from the eHUB.



The eROU\_40403434 main unit is offered with internal or external antennas. The edgeROUs require the edgeHUB WDM version (eHUB\_SR\_WDM\_AC) for power and optical connection to the headend and the corresponding iMDBUs in the headend that support these bands.

**edgeROU Components**



| edgeROU  | Notes   |
|--|---|
| Power IN   | Terminal_Block_CONN_2P (TLPS-302V-02P-G)                      |
| Optical Ports                                    | Optical connection to edgeHUB, LC/APC                         |
| Add on RF  | RF connection to edgeROU Add-on, 2 QMA-type female            |
| Add on Data                                      | Data connection to edgeROU Add-on, RJ45                       |
| Maintenance Port                                 | For connection to management PC, USB-C                        |
| LED Indicator                                    | Status indicator: Green: normal operation. Red: summary alarm |
| Antenna Ports<br>(External Antenna version only) | Two 2.2-5 type female   |

**edgeROU Specifications**

| Frequency Bands, MHz |             |                            |
|----------------------|-------------|----------------------------|
| Band                 | Frequency   | Maximum Occupied Bandwidth |
| C-Band               | 3700 - 3980 | 280                        |
| C-Band Lower         | 3450 - 3550 | 100                        |

| <b>edgeROU RF Characteristics (C-Band only)</b> |  |
|---|--|
| Output Power<br>(External Antenna Versions)     | 24 dBm (Path A C-Band SISO)<br>21 dBm (Path A C-Band Lower SISO)<br>24 dBm (Path B C-Band MIMO)<br>21 dBm (Path B C-Band Lower MIMO)                                     |
| EIRP<br>(Internal Antenna Versions)             | 28.5 dBm (Path A C-Band SISO)<br>25.5 dBm (Path A C-Band Lower SISO)<br>28.5 dBm (Path B C-Band MIMO)<br>25.5 dBm (Path B C-Band Lower MIMO)                             |
| Input Power                                     | ≤ -50 dBm  |
| Uplink IIP3                                     | >-25.5 dBm   |
| ALC Range                                       | 25 dB  |
| Noise Figure                                    | 7.5 dB, Typical (Path A C-Band SISO)<br>7.5 dB, Typical (Path A C-Band Lower SISO)<br>7.5 dB, Typical (Path B C-Band MIMO)<br>7.5 dB, Typical (Path B C-Band Lower MIMO) |
| Error Vector Magnitude                          | 1.6%, Typical (Path A C-Band SISO)<br>1.5%, Typical (Path A C-Band Lower SISO)<br>1.6%, Typical (Path B C-Band MIMO)<br>1.5%, Typical (Path B C-Band Lower MIMO)         |
| VSWR  | 1.5 dB, Typical (Path A C-Band SISO)<br>1.5 dB, Typical (Path A C-Band Lower SISO)<br>1.5 dB, Typical (Path B C-Band MIMO)<br>1.5 dB, Typical (Path B C-Band Lower MIMO) |

| <b>System RF Characteristics</b>   |  |
|------------------------------------|--|
| System Gain<br>(excluding POI)     | TX: 44 dB (C-Band), 41 dB (C-Band Lower)<br>RX: 27 dB (TDD)      |
| Gain Control Range<br>Step: 0.5 dB | TX: 30 dB iMDBU; 25 dB edgeROU<br>RX: 30 dB iMDBU; 25 dB edgeROU |

| <b>edgeROU Optical Characteristics</b>     |   |
|--|---|
| Optical Wavelength                         | TX: 1330nm, RX: 1550nm (L1), 1570nm (L2)                  |
| Number of Optical Fibers                   | One (WDM), LC-APC   |
| Optical Link Budget:<br>edgeHUB to edgeROU | 5 dBo without optical coupler; 1 dBo with optical coupler |

| <b>edgeROU Power Supply</b> |  |
|-----------------------------|--|
| Voltage                     | 39 to 57 VDC   |
| Power Consumption           | 45 watts, max  |
| Cable Distance (Typical)    | 1 edgeROU (Note: 2 edgeROUs are not supported off of single eHUB power port)<br>AWG 14: 650m<br>AWG 16: 400m<br>AWG 18: 250m |

| edgeROU Physical Characteristics |  |
|----------------------------------|--|
| Size (WxHxD)                     | Internal antenna:<br>220 x 220 x 100mm (8.7 x 8.7 x 4.0 in)                                |
|                                  | External antenna:<br>200 x 200 x 93 mm (7.9 x 7.9 x 3.8 in)                                |
| Weight                           | Internal antenna: 3.1kg  |
|                                  | External antenna: 3.5kg  |
| Sealing Class                    | IP50   |
| Mounting                         | Wall or ceiling (recessed or above)  |
| Operating Temperature            | -5 to + 50 °C, +23 to +122 °F (open space)<br>-5 to + 45 °C, +23 to +113 °F (shield space) |
| Operating Humidity               | 5% to 90%, non-condensing  |
| Cooling                          | Convection   |

| edgeROU Physical Interfaces |  |        |                        |
|-----------------------------|--|--------|------------------------|
| External Antenna            | Two 2.2-5, female                              |        |                        |
| External Antenna Ports      | eROU_40403434_X<br>(Applies to both L1 and L2) | Port 1 | Path A, C-Band + Lower |
|                             |  | Port 2 | Path B, C-Band + Lower |
| Power                       | Two pin header                                 |        |                        |
| Optical                     | Two LC-APC, simplex, single mode (1330nm)      |        |                        |
| Management                  | USB-C  |        |                        |
| Add On edgeROU              | Two QMA female, one RJ45                       |        |                        |

| edgeROU Standards Compliance  |   |
|---|---|
| <ul style="list-style-type: none"> <li>• UL 62368-1</li> <li>• FCC CFR 47 PART 15 Subpart B Class A</li> <li>• FCC CFR 47 Part 2, Part 27</li> <li>• UL2043 Plenum</li> <li>• WEEE</li> </ul> | <p>This equipment uses a Class 1 LASER according to FDA/CDRH Rules. This product conforms to all applicable standards of 21 CFR Chapter 1, Subchapter J, Part 1040.</p> |

**Ordering Information**

| Remote Units      | edgeROU Description  |
|-------------------|--|
| eROU_40403434L1_N | eROU, Main, C-Band / C-Band Lower MIMO, Internal Antenna, Lambda 1 |
| eROU_40403434L2_N | eROU, Main, C-Band / C-Band Lower MIMO, Internal Antenna, Lambda 2 |
| eROU_40403434L1_X | eROU, Main, C-Band / C-Band Lower MIMO, External Antenna, Lambda 1 |
| eROU_40403434L2_X | eROU, Main, C-Band / C-Band Lower MIMO, External Antenna, Lambda 2 |

| Hub Equipment  |  |
|--|--|
| eHUB_SR_WDM_AC *   | edgeHUB Subrack, PSU included, AC, WDM (for 3450-3550 MHz/C-Band), Delay Module (optional) |
| * This version of edgeHUB is required when using C-Band / C-Band Lower edgeROUs. |  |

| Accessories      |   |
|------------------|---|
| eROU_WALL_BKT    | edgeROU Wall Mount Bracket              |
| eROU_CEILING_BKT | edgeROU Drop Ceiling Mount Bracket      |
| eROU_PSU_KIT     | edgeROU External PSU, 2m Cable, Adapter |
| eROU_CASCADE_KIT | Optical Coupler, edgeROU Cascade        |

Additional information is available in the following documents, available from [SOLiD Support](#). See Also:

*SOLiD Data Sheet - ALLIANCE edgeROU Version 17192325-67835*

*SOLiD Data Sheet - ALLIANCE edgeROU Version 7191725-682335*

*SOLiD Data Sheet - ALLIANCE edgeROU Version 781719*

*SOLiD Data Sheet - ALLIANCE edgeHUB*

*SOLiD Data Sheet - ALLIANCE edgeHUB WDM Version*

*SOLiD Data Sheet - ALLIANCE Expansion Power Supply Unit (EPSU)*

*ALLIANCE DAS - edgeHub-edgeROU Operations & Install Guide*



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